

## CLAIMS

1                   1. A method of identification of a fingerprint, comprising  
2                   obtaining for a fingerprint a fingerprint image; storing reference fingerprints  
3                   in a databank; comparing the obtained fingerprint image with the reference  
4                   fingerprints for identification; before the identification determining for each  
5                   reference fingerprint in comparison with the obtained fingerprint image a  
6                   similarity degree; sorting the reference fingerprints in the databank in  
7                   accordance with the similarity degree; and performing the identification of the  
8                   fingerprint beginning with the reference fingerprint which leads to a greatest  
9                   similarity degree.

1                   2. A method as defined in claim 1; and further comprising  
2                   performing the identification in accordance with a details comparison.

1                   3. A method as defined in claim 1; and further comprising  
2 performing the identification in accordance with a correlation of the  
3 fingerprint with the corresponding reference fingerprint.

1                   4. A method as defined in claim 1; and further comprising  
2 determining the corresponding similarity degree by a comparison of  
3 properties of a corresponding area around a reference point of the  
4 fingerprint with each property of the corresponding area of the reference  
5 fingerprint.

1                   5. A method as defined in claim 4; and further comprising  
2 using core and delta points as reference points.

1                   6. A method as defined in claim 5; and further comprising  
2 placing square areas around the reference point of the fingerprint;  
3 multiplying the area with window function; transforming the area by means  
4 of a first integral transform in a space frequency region; determining features  
5 in the areas of the reference point; evaluating for the features the space  
6 frequencies in accordance with amount and direction; and determining by the  
7 features of the fingerprint and the reference fingerprint correspondingly the  
8 similarity degree for the corresponding reference fingerprint.

1                   7. A method as defined in claim 6; and further comprising  
2 laying the square areas in different sizes.

1                   8. A method as defined in claim 6; and further comprising  
2 breaking a power density spectrum of the areas of the reference points in  
3 sectors and rings; summing for the sectors and the ring the powers of the  
4 corresponding containing space frequencies so that for the sectors a degree  
5 for the orientation is provided and for the rings a degree for the amount;

1 forming thereby a ring vector and a sector vector; forming the ring vector and  
2 the sector vector as a feature vector; and comparing with a feature vector of  
3 the reference finger marks to determine the similarity degree.

1 10. A method as defined in claim 9; and further comprising  
2 joining the comparison of the ring vector and the sector vectors before and  
3 after a second integral transform to the similarity degree for the  
4 corresponding reference fingerprint.

1 11. A method as defined in claim 10; and further comprising  
2 performing the comparison by a method selected from the group consisting  
3 of a difference square method and a correlation method.

1 12. A method as defined in claim 1; and further comprising  
2 selecting regions on the fingerprint so that the regions have only papillar  
3 lines.

1                   13. A device for identification of a fingerprint, comprising a  
2 processor; a databank; a work storage; an indicator and a fingerprint sensor  
3 for determination of a fingerprint image, said processor being formed so that  
4 said processor compares a fingerprint image with reference marks stored  
5 in said databank to determine a similarity degree for each reference  
6 fingerprint, said processor sorting the reference fingerprints in said  
7 databank in accordance with the similarity degree, said processor performing  
8 identification of the fingerprint starting with the reference fingerprint with a  
9 greatest similarity degree, said processor exhibiting a result of the  
10 identification with said indicator.